Claims

1. A multi-functional mortise lock comprising:

a casing having a front plate for confronting a door frame, a first sidewall and an opposed second sidewall;

a latch bolt movable with respect to the casing between an extended position and a retracted position;

at least one spindle hub adapted for connection to a spindle projecting from an handle, the at least one spindle hub acting to move the latch bolt to the retracted position when rotated;

a latch retract lever for moving the latch bolt between the extended and retracted positions;

a control hub operably connected to the latch retract lever to move the latch bolt between the extended and retracted positions; and

a latch retract blocking element optionally positionable to block the latch retract lever to prevent the control hub from retracting the latch bolt, the latch retract blocking element being positionable without removing the first or second sidewall from the mortise lock to block or unblock the latch retract lever.

2. The multi-functional mortise lock according to claim 1 further including:

an interfering member movable between a locked position in which the interfering member interferingly engages the at least one spindle hub to prevent rotation thereof and an unlocked position in which the interfering member is disengaged from the at least one spindle hub;

a lock/unlock lever for moving the interfering member between the locked and unlocked positions, the control hub being operably connected to the lock/unlock lever to move the interfering member between the locked and unlocked positions; and

a lock/unlock blocking element optionally positionable to block the lock/unlock lever to prevent the control hub from moving the lock/unlock lever between

the locked and unlocked positions, the lock/unlock blocking element being positionable without removing the first or second sidewall from the mortise lock to block or unblock the lock/unlock lever.

3. The multi-functional mortise lock according to claim 2 wherein the latch retract blocking element and the lock/unlock blocking element are removably mounted to the first sidewall.

4. The multi-functional mortise lock according to claim 2 further including a spindle hub blocking element optionally positionable to block the at least one spindle hub to prevent rotation thereof, the spindle hub blocking element being positionable without removing the first or second sidewall from the mortise lock to block or unblock the at least one spindle hub.

5. The multi-functional mortise lock according to claim 4 wherein the latch retract blocking element, the lock/unlock blocking element and the spindle hub blocking element are all removably mounted to the first sidewall.

6. The multi-functional mortise lock according to claim 1 wherein the first sidewall includes a latch retract blocking opening that is threaded and the latch retract blocking element is a screw extending through the latch retract blocking opening into blocking engagement with the latch retract lever, the latch retract blocking screw being removable from outside the mortise lock to unblock the latch retract lever.

7. The multi-functional mortise lock according to claim 6 wherein the first sidewall includes a latch retract storage opening that is threaded for storing the latch retract blocking screw when the latch retract lever is not being blocked.

8. The multi-functional mortise lock according to claim 7 wherein the first sidewall is marked at the latch retract blocking opening to identify a function performed by the latch retract blocking screw when moved from the latch retract storage opening to the latch retract blocking opening.

9. The multi-functional mortise lock according to claim 7 wherein the first sidewall is marked at the latch retract blocking opening and the latch retract storage opening with corresponding marks to identify a function performed by the latch retract blocking screw when moved from the latch retract storage opening to the latch retract blocking opening.

10. A multi-functional mortise lock comprising:

a casing having a front plate for confronting a door frame, a first sidewall and an opposed second sidewall;

a latch bolt movable with respect to the casing between an extended position and a retracted position;

at least one spindle hub adapted for connection to a spindle projecting from an handle, the at least one spindle hub acting to move the latch bolt to the retracted position when rotated;

an interfering member movable between a locked position in which the interfering member interferingly engages the at least one spindle hub to prevent rotation thereof and an unlocked position in which the interfering member is disengaged from the at least one spindle hub;

a lock/unlock lever for moving the interfering member between the locked and unlocked positions;

a control hub operably connected to the lock/unlock lever to move the interfering member between the locked and unlocked positions; and

a lock/unlock blocking element optionally positionable to block the lock/unlock lever to prevent the control hub from moving the lock/unlock lever between the locked and unlocked positions, the lock/unlock blocking element being

positionable without removing the first or second sidewall from the mortise lock to block or unblock the lock/unlock lever.

11. The multi-functional mortise lock according to claim 10 wherein the first sidewall includes a lock/unlock blocking opening that is threaded and the lock/unlock blocking element is a screw extending through the lock/unlock blocking opening into blocking engagement with the lock/unlock lever, the lock/unlock blocking screw being removable from outside the mortise lock to unblock the lock/unlock lever.

12. The multi-functional mortise lock according to claim 11 wherein the first sidewall includes a lock/unlock storage opening that is threaded for storing the lock/unlock blocking screw when the lock/unlock lever is not being blocked.

13. The multi-functional mortise lock according to claim 11 wherein the first sidewall is marked at the lock/unlock blocking opening to identify a function performed by the lock/unlock blocking screw when moved from the lock/unlock storage opening to the lock/unlock blocking opening.

14. The multi-functional mortise lock according to claim 11 wherein the first sidewall is marked at the lock/unlock blocking opening and the lock/unlock storage opening with corresponding marks to identify a function performed by the lock/unlock blocking screw when moved from the lock/unlock storage opening to the lock/unlock blocking opening.

15. A multi-functional mortise lock comprising:

a casing having a front plate for confronting a door frame, a first sidewall and an opposed second sidewall;

a latch bolt movable with respect to the casing between an extended position and a retracted position;

at least one spindle hub adapted for connection to a spindle projecting from an handle, the at least one spindle hub acting to move the latch bolt to the retracted position when rotated;

a spindle hub blocking element optionally positionable to block the at least one spindle hub to prevent rotation thereof, the spindle hub blocking element being positionable without removing the first or second sidewall from the mortise lock to block or unblock the at least one spindle hub.

16. The multi-functional mortise lock according to claim 15 wherein the first sidewall includes a spindle hub blocking opening that is threaded and the spindle hub blocking element is a screw extending through the spindle hub blocking opening into blocking engagement with the at least one spindle hub, the spindle hub blocking screw being removable from outside the mortise lock to unblock the at least one spindle hub.

17. The multi-functional mortise lock according to claim 16 wherein the first sidewall includes a spindle hub storage opening that is threaded for storing the spindle hub blocking screw when the at least one spindle hub is not being blocked.

18. The multi-functional mortise lock according to claim 16 wherein the first sidewall is marked at the spindle hub blocking opening to identify a function performed by the spindle hub blocking screw when moved from the spindle hub storage opening to the spindle hub blocking opening.

19. The multi-functional mortise lock according to claim 16 wherein the first sidewall is marked at the spindle hub blocking opening and the spindle hub storage opening with corresponding marks to identify a function performed by the spindle hub blocking screw when moved from the spindle hub storage opening to the spindle hub blocking opening.

20. A multi-functional mortise lock comprising:

a casing having a front plate for confronting a door frame, a first sidewall and an opposed second sidewall;

a latch bolt movable with respect to the casing between an extended position and a retracted position;

at least one spindle hub adapted for connection to a spindle projecting from an handle, the at least one spindle hub acting to move the latch bolt to the retracted position when rotated;

a latch retract lever for moving the latch bolt between the extended and retracted positions;

an interfering member movable between a locked position in which the interfering member interferingly engages the at least one spindle hub to prevent rotation thereof and an unlocked position in which the interfering member is disengaged from the at least one spindle hub;

a lock/unlock lever for moving the interfering member between the locked and unlocked positions;

a control hub operably connected to the latch retract lever to move the latch bolt between the extended and retracted positions and operably connected to the lock/unlock lever to move the interfering member between the locked and unlocked positions;

a latch retract blocking element optionally positionable to block the latch retract lever to prevent the control hub from retracting the latch bolt, the latch retract blocking element being positionable without removing the first or second sidewall from the mortise lock to block or unblock the latch retract lever.

a lock/unlock blocking element optionally positionable to block the lock/unlock lever to prevent the control hub from moving the lock/unlock lever between the locked and unlocked positions, the lock/unlock blocking element being positionable without removing the first or second sidewall from the mortise lock to block or unblock the lock/unlock lever.

a spindle hub blocking element optionally positionable to block the at least one spindle hub to prevent rotation thereof, the spindle hub blocking element being positionable without removing the first or second sidewall from the mortise lock to block or unblock the at least one spindle hub.

21. The multi-functional mortise lock according to claim 20 wherein:

the first sidewall further includes:

a threaded latch retract blocking opening

a threaded lock/unlock blocking opening, and

a threaded spindle hub blocking opening;

the latch retract blocking element is a screw extending through the latch retract blocking opening into blocking engagement with the latch retract lever, the latch retract blocking screw being removable from outside the mortise lock to unblock the latch retract lever;

the lock/unlock blocking element is a screw extending through the lock/unlock blocking opening into blocking engagement with the lock/unlock lever, the lock/unlock blocking screw being removable from outside the mortise lock to unblock the lock/unlock lever; and

the spindle hub blocking element is a screw extending through the spindle hub blocking opening into blocking engagement with the at least one spindle hub, the spindle hub blocking screw being removable from outside the mortise lock to unblock the at least one spindle hub.

22. The multi-functional mortise lock according to claim 21 wherein the first sidewall further includes:

a threaded latch retract storage opening for storing the latch retract blocking screw when the latch retract lever is not being blocked;

a threaded lock/unlock storage opening for storing the lock/unlock blocking screw when the lock/unlock lever is not being blocked; and

a threaded spindle hub storage opening for storing the spindle hub blocking screw when the at least one spindle hub is not being blocked.

23. The multi-functional mortise lock according to claim 21 wherein the first sidewall is marked at the threaded blocking openings to identify functions performed by the blocking screws when moved from the storage openings to the blocking openings.

24. The multi-functional mortise lock according to claim 21 wherein the first sidewall is marked at the threaded blocking openings and the threaded storage openings with corresponding marks to identify functions performed by the blocking screws when moved from the storage openings to the blocking openings.

25. The multi-functional mortise lock according to claim 23 wherein the marks indicate functions performed by combinations of blocking screws and functions performed by individual blocking screws.

26. A multi-functional mortise lock comprising:

a casing having a front plate for confronting a door frame, a first sidewall and an opposed second sidewall;

a latch bolt movable with respect to the casing between an extended position and a retracted position;

a first spindle hub adapted for connection to a spindle projecting from a first handle, the first spindle hub acting to move the latch bolt to the retracted position when rotated;

a second spindle hub adapted for connection to a spindle projecting from a second handle, the second spindle hub acting to move the latch bolt to the retracted position when rotated;

a latch retract lever for moving the latch bolt between the extended and retracted positions;

an interfering member movable between a locked position in which the interfering member interferingly engages at least one of the spindle hubs to prevent rotation thereof and an unlocked position in which the interfering member is disengaged from the spindle hubs;

a lock/unlock lever for moving the interfering member between the locked and unlocked positions;

a control hub operably connected to the latch retract lever to move the latch bolt between the extended and retracted positions and operably connected to the lock/unlock lever to move the interfering member between the locked and unlocked positions;

a latch retract blocking screw removably mounted on the first sidewall and extending through the first sidewall, the latch retract blocking screw blocking the latch retract lever when mounted to the first sidewall to prevent the control hub from retracting the latch bolt, the latch retract blocking screw being removable from the first sidewall without removing the first or second sidewall from the mortise lock;

a lock/unlock blocking screw removably mounted on the first sidewall and extending through the first sidewall, the lock/unlock blocking screw blocking the lock/unlock lever to prevent the control hub from moving the lock/unlock lever between the locked and unlocked positions, the lock/unlock blocking screw being removable from the first sidewall without removing the first or second sidewall from the mortise lock; and

a spindle hub blocking screw removably mounted on the first sidewall and extending through the first sidewall, the spindle hub blocking screw blocking the first spindle hub to prevent rotation thereof, the spindle hub blocking screw being removable from the first sidewall without removing the first or second sidewall from the mortise lock.

27. The multi-functional mortise lock according to claim 26 wherein:

the first sidewall further includes:

a threaded latch retract blocking opening
a threaded lock/unlock blocking opening, and
a threaded spindle hub blocking opening;
the latch retract blocking element is a screw extending through the latch retract blocking opening into blocking engagement with the latch retract lever, the latch retract blocking screw being removable from outside the mortise lock to unblock the latch retract lever;
the lock/unlock blocking element is a screw extending through the lock/unlock blocking opening into blocking engagement with the lock/unlock lever, the lock/unlock blocking screw being removable from outside the mortise lock to unblock the lock/unlock lever; and
the spindle hub blocking element is a screw extending through the spindle hub blocking opening into blocking engagement with the first spindle hub, the spindle hub blocking screw being removable from outside the mortise lock to unblock the first spindle hub.

28. The multi-functional mortise lock according to claim 27 wherein the first sidewall further includes:
a threaded latch retract storage opening for storing the latch retract blocking screw when the latch retract lever is not being blocked;
a threaded lock/unlock storage opening for storing the lock/unlock blocking screw when the lock/unlock lever is not being blocked; and
a threaded spindle hub storage opening for storing the spindle hub blocking screw when the first spindle hub is not being blocked.

29. The multi-functional mortise lock according to claim 28 wherein the first sidewall is marked at the threaded blocking openings to identify functions performed by the blocking screws when moved from the storage openings to the blocking openings.

30. The multi-functional mortise lock according to claim 28 wherein the first sidewall is marked at the threaded blocking openings and the threaded storage openings with corresponding marks to identify functions performed by the blocking screws when moved from the storage openings to the blocking openings.